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NAPLES.*

NAPLES has been considered by some travellers to rival, and by others to surpass, in beauty, Constantinople, which we have described to our readers.

This ancient and every way remarkable city rises like an amphitheatre at the back of a magnificent bay more than thirty miles in circumference, which, from the beauty and luxuriance of its shores and the picturesqueness of its scattered islands, is perhaps unrivalled even in the Mediterranean. The view of the city from the head of the bay, when seen for the first time, appears too lovely to be real. It runs in a long and gentle curve round the sea-shore, rising inland up the declivities of gentle hills, which above the line of the city are covered with vineyards and gardens, and speckled with villas and monasteries. The summit of one of these hills is crowned by the massive palace of Capo di Monte, that of another by the spacious monastery of San Martino and the castle of St. Elmo, in the rear of which, and high above, stretches the wooded mountain of the Camaldoli, with another picturesque monastery on its brow; and the ridges of these hills immediately behind Naples are fringed in many places with romantic looking villages, and here and there with groups of the graceful Italian pine-tree. To the right of the city, at the distance of about four miles, rises the conical volcano of Vesuvius, at whose feet repose the villages of Portici and

* NAPLES, from the Sea, viewed to the right of the CASTEL DEL OVO.

Resina, which stand over the ancient city of Herculaneum (buried by an eruption of the mountain) and are connected with the capital by an almost uninterrupted chain of suburbs and hamlets. To the left, starting close from the extremity of the city, projects the gentle promontory of Posilippo, entirely covered with beautiful little villages, country seats, towers, gardens, and groves. And at the back-ground of nearly the whole of this magical picture, tower the bold summits of part of the Apennine chain of mountains.

The view *from* the city is not less admirable; besides Vesuvius and Posilippo, and the winding shores of the bay, it commands, immediately in front, the rugged and most picturesque cliffs of the island of Capri; a little to the left of that island, Cape Campanella, the extremity of a peninsula as grand as that of Posilippo is gentle; and, glancing along that coast until it is surmounted at a corner of the bay opposite to Vesuvius by the sublime heights of Mount St. Angelo, whose rocky summit is ornamented by a small white hermitage, the eye can take in the towns of Massa, of Sorrento, (the birth-place of the poet Tasso,) of Vico, of Castellamare, and many villages on the declivities of the mountains, or on the cliffs that rise on that side perpendicularly from the bay.

The interior of the city, like Constantinople, is not equal to its external appearance and the scenery around it. How indeed could it be so? But, also like Constantinople, its interior is much better than travellers have generally chosen to describe it. Naples, which occupies the ground of both Palæpolis and Neapolis, towns of ancient and Grecian origin, is an open and irregularly built city; its greatest length is along the sea-shore, where it extends in a curve of about three miles and a half; its breadth is very unequal; at the west end (which, as in London, is now the fashionable part) it is so much contracted between the hills of Vomero and Belvedere and the sea, as only to allow of one or two parallel streets; there is more open space towards the centre, where it extends northward as far as the hills of Capo di Monte and Capo di Chino, between which beau-

tiful eminences and the sea stands the most populous part of the town, including the old city, whose ditches and walls are still to be traced in many places. Its greatest breadth from south to north, or from the sea-shore to the foot of Capo di Monte is little short of two miles. The ground it occupies is of course very uneven, which is the cause of some internal inconvenience and of great external beauty. About 400,000 souls inhabit the space described, so that Naples, as to population, must be reckoned among the great capitals of Europe.

The Strada Toledo, which traverses the city for three quarters of a mile, is the principal street in Naples, and, at least, one of the most populous, busy, and noisy streets in the world. Nothing can be more striking than the contrast between a street of Constantinople, and this or almost any other street of Naples. There the pedestrians are few and taciturn, and there are no equipages; here abound wheeled carriages of every description, from the humble hack corricolo with its single little horse, to the gay carriage of the noble with its pair or double pair of proud steeds; and the noise made by the rattling wheels of these thronging vehicles is equalled by the vociferousness of the crowding foot-passengers, and by the men, women, and children that ply their business by the sides of the streets.

Though the Neapolitan taste in architecture is generally far from good, there are some fine and imposing palaces on the Toledo, where indeed all the houses are lofty; and as, in despite of a faulty government [illegible] general civilization of Europe has of late years crept into that extremity of it, many of the nuisances complained of in former times have been gradually disappearing, and the Strada Toledo and *some* other parts of the town assuming an aspect of general decency and comfort. According to the accounts of those who have known it during all that interval, the progress of Naples has been very considerable since 1815. But, in the lower or old part of Naples, the narrowness of the streets is such as to be ridiculous and almost incredible. There is an extensive quarter called "Napoli sen-

za Sole," or Naples without Sun, and where in reality, from the height and closeness of the lines of buildings, that luminary never shines. In some of those streets a man may stand in the middle, and, by stretching out his arms, touch the houses on either side of him. Here inhabit the poorer and the genuine Neapolitans of the old school, unchanged as yet by the civilization of Europe, and probably in all things much the same as when the fisherman Masaniello, with the populace of these quarters, discomfited and humbled the Spanish viceroy.

The number of churches in the whole city is immense, amounting to several hundreds. There is more than one street entirely occupied by convents. But of these clumsy monastic edifices, which were made to cumber the soil chiefly during the misrule of the superstitious Spaniards, many have long been converted into inns, manufactories, colleges, and schools, and the orders or societies to which they belonged have been suppressed.

One of the most striking features of Naples is the predominance every where of volcanic matter. The three hills upon which the city chiefly stands (to say nothing of Vesuvius on one side of it, and the lake of Agano, the Astruni, and the Solfatara on the other, which are so many extinct volcanoes) are themselves three exhausted and worn-down craters; the ground in many places is hollow; sources of water impregnated with sulphur gush out in the town; every street is paved all over with broad flags of dark lava cut and brought from mount Vesuvius; the subterranean road through the grotto of Posilippo, and nearly every other road where it enters the capital, is paved with the same material—one, the road of Portici, for a distance of five or six miles. In the construction of the houses, lava and volcanic *debris* are worked up with tufa. Blocks of lava meet you every where. They are thrown into the sea to form piers and jettees, and the finer sorts furnish materials to carvers and other artisans, who cut them into snuff-boxes, paper pressers, chessmen, and chimney piece ornaments.

CIRCLE OF THE SCIENCES WITH SUITABLE REFLECTIONS.

NATURAL PHILOSOPHY.

The object of *Natural Philosophy* is, to observe and describe the phenomena of the material universe, with a view to discover their causes, and the laws by which the Almighty directs the movements of all bodies in heaven and on earth. It embraces an investigation of the laws of gravitation, by which the planets are directed in their motions—the laws by which water, air, light, and heat, are regulated, and the effects they produce in the various states in which they operate—the nature of colours, sounds, electricity, galvanism, and magnetism, and the laws of their operation—the causes which operate in the production of thunder, lightning, luminous and fiery meteors, hail, rain, snow, dew, and other atmospherical phenonema. In short, it embraces all the objects of Natural History formerly alluded to, with a view to ascertain the causes of their varied appearances, and the principles that operate in the changes to which they are subject; or, in other words, the laws by which the diversified phenomena of universal nature are produced and regulated. One subordinate use of the knowledge derived from this science, is, to enable us to construct all those mechanical engines which facilitate human labour, and increase the comforts of mankind, and all those instruments which tend to enlarge our views of the operations of nature. A still higher and nobler use to which philosophy is subservient, is, to demonstrate the Wisdom and Intelligence of the Great First Cause of all things, and to enlarge our conceptions of the admirable contrivance and design which appear in the different departments of universal nature. In this view, it may be considered as forming a branch of *Natural Theology*, or, in other words, a branch of the religion of angels, and of all other holy intelligences.

This department of Natural science has generally been divided into the following branches:

I. Mechanics. This branch, considered in its most extensive range, includes an investigation of the general properties of matter; such as solidity, extension, divisibility, motion, attraction, and repulsion—the laws of gravitation, and of central forces, as they appear to operate in the motions of celestial bodies; and on the surface of our globe, in the phenomena of falling bodies, the motions of projectiles, the vibration of pendulums, &c. —the theory of machines, the principles on which their energy depends; the properties of the mechanical powers—the *lever*, the *wheel* and *axle*, the *pulley*, the *inclined plane*, the *wedge* and the *screw*—and the effects resulting from their various combinations. From the investigations of philosophers on these subjects, we learn the laws by which the great bodies of the universe are directed in their motions; the laws which bind together the different portions of matter on the surface of the earth, and which regulate the motions of animal, vegetable, and inanimate nature; and the principles on which cranes, mills, wheel-carriages, pile-engines, thrashing machines, and other engines, are constructed; by means of which, man has been enabled to accomplish operations far beyond the limits of his own physical powers.

Without a knowledge of the laws of motion, and assistance from the combined effects of the mechanical powers, man would be a very limited being, his enjoyments would be few, and his active energies confined within a very narrow range. In a savage state, ignorant of manufactures, agriculture, architecture, navigation, and the other arts which depend upon mechanical combinations, he is exposed, without shelter, to the inclemencies of the seasons; he is unable to transport himself beyond seas and oceans, to visit other climes, and other tribes of his fellow-men; he exists in the desert, comfortless and unimproved; the fertile soil, over which he roams, is covered with thorns, and briers, and thickets, for the haunt of beasts of prey; his enjoyments are little superior to those of the lion, the hyæna, and the elephant, while he is much their inferior, in point of agility and physical strength. But, when Philosophy

has once demonstrated the principles of Mechanics, and introduced the practice of the useful Arts, "the wilderness and the solitary place are made glad, and the desert rejoices and blossoms as the rose." Cities are founded, and gradually rise to opulence and splendour; palaces and temples are erected; the damp cavern, and the rush-built hut, are exchanged for the warm and comfortable apartments of a substantial mansion; ships are built, and navigated across the ocean; the treasures of one country are conveyed to another; an intercourse is carried on between the most distant tribes of mankind; commerce flourishes, and machinery of all kinds is erected, for facilitating human labour, and promoting the enjoyments of man. And, when the principles and the practice of "pure and undefiled religion" accompany these physical and mechanical operations, love and affection diffuse their benign influence; the prospect brightens as years roll on, and man advances, with pleasure and improvement, to the scene of his high destination.

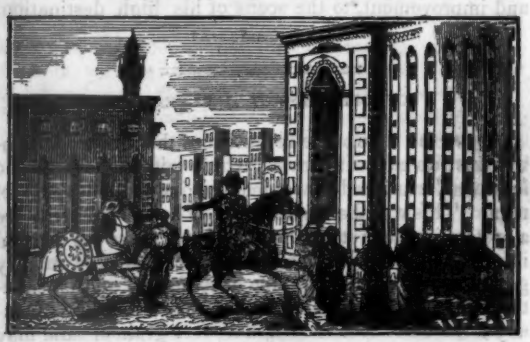
(To be Continued.)

BOUNDLESSNESS OF THE CREATION.

About the time of the invention of the Telescope, another instrument was formed, which laid open a scene no less wonderful, and rewarded the inquisitive spirit of man. This was the Microscope. The one led me to see a system in every star; the other leads me to see a world in every atom. The one taught me that this mighty globe, with the whole burden of its people and its countries, is but a grain of sand on the high field of immensity; the other teaches me, that every grain of sand may harbour within it the tribes and the families of a busy population. The one told me of the insignificance of the world I tread upon; the other redeems it from all its insignificance; for it tells me, that in the leaves of every forest, and in the flowers of every garden, and in the waters of every rivulet, there are worlds teeming with life, and numberless as are the glories of the firmament.

The one has suggested to me, that beyond and above all that is visible to man, there may be fields of creation which sweep immensely along, and carry the impress of the Almighty's hand to the remotest scenes of the universe; the other suggests to me, that within and beneath all that minuteness which the aided eye of man has been able to explore, there may be a region of invisibles; and that could we draw aside the mysterious curtain which shrouds it from our senses, we might see a theatre of as many wonders as astronomy has unfolded, a universe within the compass of a point so small as to elude all the powers of the microscope; but where the wonder-working God finds room for the exercise of all his attributes, where he can raise another mechanism of worlds, and fill and animate them all with the evidence of his glory.—*Chalmers.*

TOPOGRAPHICAL SKETCHES.



STREET VIEW IN THE INTERIOR OF DAMASCUS.

On entering Damascus from the south-east quarter I was charmed, beyond expression, with the verdant and delightful appearance of the olive grounds, fruitful gardens, and running streams, through which the city is approached. A remarkable peculiarity of the buildings

in this quarter is, that almost every separate edifice appears to have a high and pointed dome of brick-work, which, being of the same light coloured earth used in the bricks of the buildings, resembles, at a distance, a number of large straw bee-hives. We entered the city through the Bab-el-Ullah, or the gate of God, so called from its leading to Jerusalem and Mecca—both holy cities, and both places of pilgrimage, the last only to the Mahommedans, but the first to all the several classes of Jews, Christians, and Moslems, by each of whom it is held in high estimation, and called by all El-Khods-el-Shereef, the Holy and the Noble.

The street through which we passed was paved in the centre, upon a raised level, forming an excellent road for beasts of burden, camels, and horses, and would easily admit the passage of six or eight abreast. Below this raised road, was an unpaved space on each side, and within this again a pavement of smaller stones nearly as broad as the central raised way, for foot passengers, along the fronts of the dwellings, shops and other edifices that lined the street. Had the buildings been at all correspondent to the length and breadth of this fine road, the effect of the whole would have been excellent; but these were, in general, poor and mean, and totally destitute of uniformity, whether in size, style, or material.

Among the principal edifices I noticed several mosques, some of modern, and others apparently of a pretty old date. The shops were all open, and many manufactories of cotton, silk, stuff, and leather, were carried on at each side of the street in the open air. Nothwithstanding my disappointment at the general inferiority of the buildings of this fine street, to the expectation I had formed of them, I was, nevertheless, much pleased at the cleanliness of every thing we saw and the apparent health and beauty of the people of all classes that we met in our way, as well as the richness and gaiety of apparel, among the young and old, the rich and poor, in proportion to their several ages and ranks; the oldest and the poorest among them, however,

being much better dressed than the ordinary class of people in any Arab or Turkish town that I had yet seen.

There was a degree of order and tranquillity also visible in every part of the street, even that most thickly crowded with people, which was pleasing to witness, and gave a very favourable impression as to the sober and orderly habits of the inhabitants.—*Buckingham.*

NATURAL HISTORY.

THE WHITE-HEADED OR BALD EAGLE.

The following picturesque description of the White-headed or, as it is commonly called, the Bald Eagle, and its predatory habits, is extracted from the fourth volume of Wilson's American Ornithology.

The celebrated cataract of Niagara is a noted place of resort for those birds, as well on account of the fish procured there, as for the numerous carcasses of squirrels, deer, bears, and various other animals, that in their attempts to cross the river above the falls have been dragged into the current, and precipitated down that tremendous gulf, where, among the rocks that bound the rapids below, they furnish a rich repast for the vulture, the raven, and the Bald Eagle, the subject of the present account.

This bird has been long known to naturalists, being common to both continents, and occasionally met with from a very high northern latitude, to the borders of the torrid zone, but chiefly in the vicinity of the sea, and along the shores and cliffs of our lakes and large rivers. Formed by nature for braving the severest cold; feeding equally on the produce of the sea and of the land; possessing powers of flight capable of outstripping even the tempests themselves; unawed by any thing but man; and from the ethereal heights to which he soars, looking abroad, at one glance, on an immeasurable expanse of forests, fields, lakes, and ocean, deep below him, he appears indifferent to the little localities of change of seasons; as in a few minutes he can pass

from summer to winter, from the lower to the higher regions of the atmosphere, the abode of eternal cold, and from thence descend at will to the torrid or the arctic regions of the earth. He is therefore found at all seasons in the countries he inhabits, but prefers all such places as have been mentioned above, from the great partiality he has for fish.

In procuring these, he displays, in a very singular manner, the genius and energy of his character, which is fierce, contemplative, daring, and tyrannical; attributes not exerted but on particular occasions; but, when put forth, overpowering all opposition. Elevated on the high dead limb of some gigantic tree that commands a wide view of the neighbouring shore and ocean, he seems calmly to contemplate the motions of the various feathered tribes that pursue their busy avocations below; the snow-white gulls slowly winnowing the air; the busy *tringæ* (sandpipers) coursing along the sands; trains of ducks streaming over the surface; silent and watchful cranes, intent and wading; clamorous crows, and all the winged multitudes that subsist by the bounty of this vast liquid magazine of nature. High over all these hovers one whose action instantly arrests all his attention. By his wide curvature of wing, and sudden suspension in air, he knows him to be the fish-hawk (*Pandion Haliætus*, Savigny,) settling over some devoted victim of the deep. His eye kindles at the sight, and balancing himself, with half-opened wings, on the branch, he watches the result. Down rapid as an arrow from heaven, descends the distant object of his attention, the roar of its wings reaching the ear as it disappears in the deep, making the surge foam around. At this moment the eager looks of the eagle are all ardour; and levelling his neck for flight, he sees the fish-hawk once more emerge, struggling with his prey, and mounting in the air with screams of exultation. These are the signal for our hero, who, launching into the air, instantly gives chase, and soon gains on the fish-hawk; each exerts his utmost to mount above the other, displaying in the rencontre the most ele-

gant and sublime aerial evolutions. The unincumbered eagle rapidly advances, and is just on the point of reaching his opponent, when, with a sudden scream, probably of despair and honest execration, the latter drops his fish; the eagle, poising himself for a moment as if to take a more certain aim, descends like a whirlwind, snatches it in his grasp ere it reaches the water, and bears his ill-gotten booty silently away to the woods.

These predatory attacks and defensive manœuvres of the eagle and fish-hawk are matters of daily observation along the whole of our sea-board, from Georgia to New England, and frequently excite great interest in the spectators. Sympathy, however, on this as on most other occasions, generally sides with the honest and laborious sufferer, in opposition to the attacks of power, injustice, and rapacity, qualities for which our hero is so generally notorious, and which, in his superior, man, are equally detestable. As for the feelings of the poor fish, they seem altogether out of the question.

THE KANGAROO BEETLE.

The various tribes of insects, particularly the Beetles, present more extraordinary forms than any other portion of animated nature. The little real knowledge we possess of their habits, makes it very improbable that we shall ever be able properly to apreciate the wisdom of the Creator in furnishing them with so peculiar an arrangement of parts; but that this has been done for the benefit of the individual, we cannot have the least reason to doubt. To some, a terrific appearance may have been given for the purpose of deterring their enemies; and the hard shell of the Beetle affords an excellent protection for its tender body, against the attacks of other more powerful creatures.

The Mole Cricket is furnished with a very strong pair of legs in front; the last joint of which is made much in the form of the fore-legs of the mole, and in both cases, turned sideways like the human hand. In this case, there is not the least doubt, that this pe-

culiarity is for the purpose of assisting the animal in working its way in its passage under ground, and it is possible, that the enormous hinder legs of the insect here figured, may be applied to some such purpose.

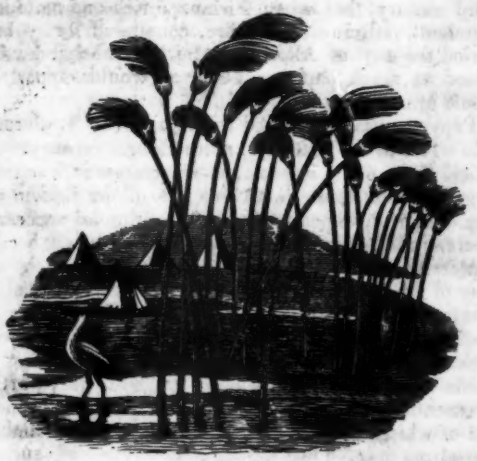
The Kangaroo Beetle.

The same peculiarity of form has been the means of giving it a name, from its bearing a remote resemblance to the kangaroo of New South Wales. It is supposed to be a native of South America; but little is known to a certainty, of the place from which it comes.

Beetles of most kinds perform the same office as the vultures, and assist to clear the earth of putrid substances, which they either devour at once, or bury with great dexterity; a curious instance of this is to be found in the burying beetle, by whose exertions the body of a dead mole is removed to several inches under the surface of the ground, in an incredibly short space of time, when the size of the insect is taken into consideration. The number of known species of this tribe is very great; in England alone they amount to not less than 4000;

and, in some of the hot climates, the land absolutely swarms with them.

VEGETABLE SUBSTANCES.



PAPYRUS.

THE first manufactured paper of which we have any record, is the celebrated papyrus made of a species of reed growing in Egypt on the banks of the Nile. According to a passage in Lucan, which is likewise corroborated by other authorities, this paper was first manufactured at Memphis, but it has been a matter of much controversy to fix the precise period of its invention.

The papyrus formed, without doubt, at a very early period, an important branch of commerce to the Egyptians, and was one of the manufactures carried on by that people at Alexandria. It obtained an increasing importance among the Romans as literature became more valued and diffused; in the Augustan age it grew into most extensive demand. We are told in the reign

of Tiberius, of a popular commotion which arose in consequence of a scarcity of this valuable material. The commerce in papyrus continued to flourish during a long period, the supply being always less than the demand. Its value was so great towards the end of the third century, that when Firmus, a rich and ambitious merchant, striving at empire, conquered for a brief period the city of Alexandria, he boasted that he had seized as much paper and size as would support his whole army.

Papyrus was much used in the time of St. Jerome, who wrote at the latter end of the fourth century. An article of so much importance in commerce was made largely to contribute to the revenue of the Roman empire, and fresh imposts were laid on it under successive rulers, until the duty on its importation at length became oppressive. This was abolished by Theodoric, the first king of the Goths in Italy, at the end of the fifth or beginning of the sixth century. Cassidorus records the gracious act in the thirty-eighth letter of his eleventh book, in which he takes occasion to congratulate "the whole world on the repeal of an impost upon an article so essentially necessary to the human race," the general use of which, as Pliny has remarked, "polishes and immortalizes man."

The precise period when this description of paper went into disuse has, equally with the time of its first introduction, been made a subject of interest and controversy among antiquaries; some fixing the period at the fifth, others extending it to the eleventh century. It is, however, most probable that when, in the middle of the seventh century, the Saracens became masters of Egypt, the intercourse between that country and Rome was so interrupted, that the supply of papyrus became scanty and precarious. Previously to that event all public records had been executed on papyrus, while it is found that at a date immediately subsequent parchment was substituted.

A minute and accurate description of this plant, and of the manner of converting it into paper, are to be found

in Pliny's Natural History. Our enterprising traveller, Bruce, also furnishes an account and a delineation of the papyrus made from personal observations, and which are strictly in accordance with the writings of the Roman naturalist upon the subject.

The roots of this plant are tortuous, the stem triangular, rising to the height of twenty feet, tapering gradually towards the extremity, which is surmounted by a flowing plume.

Paper was prepared from the inner bark of the stem by dividing it with a kind of needle into thin plates or pellicles, each of them as large as the plant would admit. Of these strata the sheets of paper were composed. The pellicles in the centre were considered as the best; and each plate diminished in value according as it receded from that part. After being thus separated from the reed, the pieces, trimmed and cut smooth at the sides that they might the better meet together, were extended close to and touching each other on a table; upon these other pieces were placed at right angles. In this state the whole was moistened with the water of the Nile, and while wet was subjected to pressure, being afterwards exposed to the rays of the sun. It was generally supposed that the muddy waters of the Nile possessed a glutinous property, which caused the adhesion to each other of these strips of papyrus. Bruce, however, affirms that there was no foundation for this supposition, and that the turbid fluid has in reality no adhesive quality. On the contrary, he found that the water of this river was of all others the most improper for the purpose, until, by the subsidence of the fecula, it was entirely divested of the earthly particles it had gathered in its course. This traveller made several pieces of papyrus paper both in Abyssinia and in Egypt, and fully ascertained that the saccharine juice, with which the plant is replete, causes the adhesion of the parts together, the water being only of use to promote the solution of this juice, and its equal diffusion over the whole. When there was not juice enough in the plant, or when the water failed to dissolve it sufficiently,

the strips were united with paste made of the finest wheaten flour, mixed with hot water and a small proportion of vinegar: after being dried and pressed, the paper was then beaten with a mallet, by which means it was still farther smoothed and flattened. Paper thus made was esteemed according to its strength and whiteness.

Sufficient evidence of the abundant use of the papyrus is to be found in the fact that nearly eighteen hundred manuscripts written on paper of this description have been discovered in the ruins of Herculaneum.

Paper made of cotton entirely superseded the papyrus in the course of time, as being much more durable and better calculated for all the purposes to which paper is ordinarily applied. This new substance was called *charta bombycina*. It cannot be exactly ascertained when this manufacture was first introduced. Montfaucon fixes the time as being the end of the ninth or beginning of the tenth century, a period when the scarcity of parchment and the failure in the supply of papyrus called forth the powers of invention to supply some adequate substitute. It was about this time that the dearth of writing materials induced the Greeks to pursue the almost sacrilegious practice of erasing the valuable writings of ancient authors, that they might obtain the parchment on which these were inscribed. The more abundant manufacture of cotton-paper, though not before the destruction of much that was excellent, happily prevented a still more extensive devastation.

Many proofs are afforded that in the beginning of the twelfth century cotton-paper was commonly used in the eastern empire for books and writings; but it was not deemed sufficiently durable for important documents, for which purpose parchment was still employed.

The fabrication of this kind of paper has been a flourishing branch of industry in the Levant for many centuries, and is carried on with great success even to the present time. The paper produced from cotton is very white, strong, and of a fine grain, but not so well adapt-

ed for writing upon as the paper which is now used. Much ingenuity must have been exercised, and many previous experiments must have been required, successfully to reduce the cotton to a pulpy substance, and to conduct the subsequent process, so as to render this material suitable to the purposes of writing.

After this first great step, the adaptation to a similar use of linen rags and other fibrous materials, called comparatively but for little invention, and it was probably not very long after the general use of cotton for paper, that linen rags were discovered to be a still better material.

BIOGRAPHICAL SKETCHES.

MEMOIR OF DOCTOR JOHNSON.

Dr. Samuel Johnson, one of the best, as well as most illustrious, men of whom England can boast, was born on the 7th of September, 1709, at Litchfield, where his father was a bookseller, in very low circumstances. He contrived, however, to maintain his son for some time at Oxford. On his death, the young student was compelled by necessity to engage himself as usher in a grammar-school. In this situation he was treated in a manner which so wounded his feelings, that it was a subject of painful remembrance to him for the rest of his life. On quitting it he made some unsuccessful attempts to maintain himself by his pen; and soon

afterwards married Mrs. Porter, the widow of a mercer of Birmingham, with whom he received a small sum of money, which enabled him to open a boarding-school. In this, too, he was unsuccessful; he abandoned his plan and resolved to try his fortune in London. His first work of any note was his celebrated poem of *London*. It was published without his name, but soon attracted the notice of the most distinguished individuals of the day. For a considerable time after this, his chief employment was writing in the *Gentleman's Magazine*, to which work he gave great interest by reporting the debates in the Houses of Parliament under the fiction of "Debates in the Senate of Lilliput." In those days the machinery of the daily press, by means of which the debates of a whole night are laid on our breakfast tables in the morning, was not in existence; and the public was delighted with discussions full of vigour and eloquence, much of which was given to them by the reporter. In 1747, he published his plan of an *English Dictionary*, for which he endeavoured to obtain the patronage of the Earl of Chesterfield, so well know for his writings on the subject of politeness. But the intercourse between the polished courtier and the rough scholar, was equally unsatisfactory to both; and Johnson informed the world in his preface, that "the English Dictionary was written with little assistance from the learned, and without any patronage of the great; not in the soft obscurities of retirement or under the shelter of academic bowers, but amidst inconvenience and distraction, in sickness and in sorrow." Chesterfield, on the other hand ridiculed Johnson's deportment and manners, of which he gave a satirical description in one of his Letters to his Son.

In 1749, Johnson produced another admirable satire, *The Vanity of Human Wishes*, and his tragedy of *Irene*. He now began *The Rambler*, a work which was not at first received in a manner worthy of its great excellence. Written entirely by himself, and in a very serious tone, it wanted the variety and gaiety necessary to attract the readers of periodical publications. But,

after it was collected into volumes, its merit was fully perceived; and the author lived to see it reach a tenth edition.

Soon after the close of the *Rambler*, he lost his wife, who had been his faithful and affectionate partner in all his difficulties and distresses, and whose death he deeply deplored. His *Dictionary*, the labour of many years, was now brought out, and hailed by the public as a valuable addition to English literature. The profit he derived from it did not, however, remove his difficulties; he had, in fact, been living upon it before hand during nearly the whole time of its preparation. He then began the *Idler*, a series of delightful Essays, which were published in a weekly newspaper. So severe did his struggles with poverty still continue to be, that, on the death of his mother, in 1759, he wrote the beautiful moral tale of *Rasselas*, for the purpose of raising a sufficient sum of money to defray the expenses of her funeral and discharge her little debts.

In 1762, he received a pension from king George the third; by which, and the profits of his literary labours, he was placed in easy circumstances. The only great work which he produced after this period was his *Lives of the English Poets*, which was completed in 1781. He died on the 13th of December, 1785, in the 75th year of his age; his remains were interred in Westminster Abbey, and a monument is erected to his memory in St. Paul's Cathedral.

Dr. Johnson, as a writer, has never been surpassed in the greatness of his conceptions, and the elevation of his religious and moral sentiments. Living much in the world, and undergoing many of the trials and changes of life, his philosophy was built on experience and observation of human nature; and if his pencil, on the whole, is a dark one, yet there are beautiful lights, as well as deep shades, in his pictures. His views of religion have most unjustly been blamed as gloomy. That he laboured, at times, under a greater fear of death than might have been expected from his christian principles and general strength of mind, is true; but this,

with some imperfections of character (of no great moment indeed) is to be ascribed to the diseased state of his bodily frame during the whole of his long life. In his trials and calamities, we find him always resorting to heaven for support and consolation; and, in his writings, while the duties of religion are represented as utterly inconsistent with the slightest degree of vicious indulgence, they are never placed as bars to innocent enjoyment. His style has been made the subject of much criticism, and frequently exposed to petulent ridicule. But it seems peculiarly suited to his turn of thought; and, in his pages, a grand and solemn train of reflexions becomes still more impressive from the magnificent flow of the language in which it is clothed.

In private life, Dr. Johnson was not less beloved than revered. He was rough in his exterior, but his heart was full of the milk of human kindness. He has been represented as rude and overbearing in society; but his rudeness will be found to have been generally worthy of a better name, and to have exhibited itself in stern reproof of presumptuous ignorance or unbecoming levity; while his life was spent in offices of kindness and charity, to the utmost extent of his means. Even his ordinary conversation was full of instruction; and Boswell, who wrote his life, has by merely preserving what fell from his lips, produced one of the most valuable books in our language.

CABINET OF NATURE.

CAVERN OF THE GUACHARO.

Baron Humboldt, in his *Personal Narrative*, gives an account of a remarkably interesting cavern, in the province of New Andalusia, about three short leagues from the convent of Caripe, and called the cavern of the Guacharo.

A narrow path led the travellers across a fine verdant plain, when they turned westward, and were guided by a small river, which issues from the mouth of the cave.

During three-quarters of an hour, they continued to ascend, sometimes walking in the water, and sometimes between the torrent and a wall of rocks, by a path rendered slippery and fatiguing by masses of earth and trunks of fallen trees, which they had to surmount. On a sudden turn of the road, which winds like the stream, they found themselves before the immense opening of the grotto. Baron Humboldt states that the aspect of the place was majestic, even to an eye accustomed to the picturesque scenery of the Alps; he had visited the Peak Cavern, in Derbyshire, and was acquainted with the different caves of Franconia, the Harz and Carpathian mountains, and the uniformity generally observable in all these, led him to expect a scene of a similar character in that which he was about to visit; but the reality far exceeded his expectations; for, if the structure of the cave, and the variety and beauty of the stalactites resembled those he had elsewhere witnessed, the majesty of equinoctial vegetation gave an individual character and indescribable superiority to the entrance of the Cavern of the Guacharo.

The entrance is a vaulted arch, eighty feet broad and seventy-two feet high; the steep rock that surmounts this opening is covered with gigantic trees, mixed with creeping and climbing plants and shrubs, brilliant with blossoms of the richest colours, and the most varied forms.* These form natural festoons, which hang before the mouth of the cave, and are gently agitated by the passing currents of air. What a contrast between such a scene and the gloomy entrances to the caverns of northern climes, crowned with oaks and sombre larches! But this luxuriant vegetation was not alone confined to the exterior; the traveller, on following the banks of this subterranean stream into the grotto, beheld them with astonishment, adorned for thirty or forty yards

* For the sake of our botanical readers, we may state, that among these the Baron enumerates a Dendrobium (family Orchides,) with golden flowers, spotted with black, and three inches long! A Bignonia, with a violet blossom; a purple Dolichos, and a magnificent Solandra, the deep orange flower of which has a fleshy tube, four inches long.

with the Praga palm-tree, plaintain-leaved heliconias, eighteen feet high, and arums that resembled trees in their size!

It was not found necessary to light their torches till they had reached the distance of 430 feet, owing to the continuous direction of the cavern, which allows the light of day to penetrate thus far; and when this began to fail, the hoarse cries of the nocturnal birds, whence the place derives its name and celebrity, began to be audible from a distance. The Guacharo is about the size of a common fowl, and resembles in form the vulture tribe, with a beak surrounded by stiff hairs; its plumage is of a dark blueish gray, mixed with small streaks of black; white large heart-shaped spots, bordered with black, mark the head, wings and tail; it is strictly a nocturnal bird, and is almost the only one which does not prey on animals, its food being fruits. The shrill, discordant noise made by thousands of these birds, brought from the inmost recesses of the cave, and reverberated from the arched roofs, form a clamour of which it is impossible to form an idea. Their Indian guides, by fixing torches to the ends of long poles, showed the travellers the nests of the bird, which were constructed in funnel-shaped holes, with which the roof of the grotto was pierced in all directions, and generally at about sixty feet above their heads.

There is an annual destruction of these birds by the Indians, who obtain from their young an oil much used in that country. They bring down their nests by means of long poles, and many thousands of the old birds are killed while endeavouring to defend their helpless progeny; they keep hovering over the heads of their enemies uttering the most discordant cries. The young that fall with the nests are immediately opened, and a thick layer of fat that is found in their intestines is melted down in pots of clay, and is known by the name of guacharo butter (Manteca or Aceite) it is half liquid, transparent, without smell, and may be kept a year without becoming rancid, and, according to the Baron who ate it at the convent, where no other oil is used, it

imparts no disagreeable taste or smell to the food dressed with it. The habits of the bird, excluded from daylight, using little exercise, and feeding on vegetable food, account for the production of this quantity of fat in a manner analogous to that in which geese and oxen are known to become large by similar modes of treatment; the quantity of this oil obtained, bears but a small proportion to the carnage thus made annually by the hunters; they do not obtain more than 150 or 160 bottles, of about sixty cubic inches each, of pure *manteca*; the rest, which is less transparent, is kept in earthen vessels.

There are two causes why this destruction of the birds at the *oil-harvest*, as it is termed, have not extirpated the race; one is that the Indians are prevented by superstition from penetrating very far into the interior of the cavern, and the other that neighbouring caverns too small to be penetrated by man, afford a place of security to them to breed and multiply in; at least it appears that no perceptible diminution of their numbers has been observed.

The travellers in continuing to explore the cave, followed the banks of the stream which issues from it, and is from twenty to thirty feet wide; they pursued this course as far as the hills formed of the calcareous depositions admitted. When the torrent wound among high masses of stalactites, they were often obliged to descend into the bed of the stream, which is only about two feet in depth; on its banks they observed great quantities of palm-tree wood, the remains of trunks the Indians made use of to climb to the nests which they could not otherwise get down.

Still pursuing the course of the river, the cavern preserving the same width and height to the distance of 1458 feet from the mouth; the travellers on turning round, were struck with the singularly beautiful appearance which a hill covered with the richest vegetation, immediately fronting the entrance of the grotto, presented; this, brilliantly illuminated by the sun's rays and seen through the vista of the dark cave, formed a

striking contrast to the surrounding obscurity; while the large stalactites depending from the roof were relieved against the luminous back ground of verdure. After surmounting, with some difficulty, an abrupt rise in the ground where the stream forms a small cascade, they found that the cave diminished in height to forty feet, but retained its original direction: here a blackish mould was found, either brought by the rivulet, or washed down from the roof by the rain-water which penetrates the crevices of the rock; and in this, to the delight of the travellers, they found seeds growing, which had been brought thus far into the cave by the birds, but so altered by the deprivation of light, that they could not even recognise the species of plant thus produced under such unfavourable circumstances. It was found impossible to persuade the Indian guides to advance further; the cries of the birds, rendered still more horrible by the contraction of the cave, had such an effect on their minds, that they absolutely refused to proceed; and to the regret of Humboldt and his friend they were compelled to retrace their steps.

THE SUN.

"Great source of day! best image here below
Of thy Creator, ever pouring wide,
From world to world, the vital ocean round,
On nature write with every beam his praise."

The *sun* is, indeed, a most glorious luminary, and is without doubt, the most perfect image of his great Creator that we can behold among inanimate beings; and indeed so nigh in one respect does he resemble his Maker, that of the Sun it may be said, that he also is

"Too glorious to be gazed on in its sphere."

It is no wonder, then that the fallen reason of idolatrous nations "should mistake so fair a copy for the adorable original," and that philosophers should be divided so much in their opinions respecting his substance. In one thing, however, even from the imperfect glance we

have been able to procure of this glorious body, it is found to differ from, and to fall infinitely shorter of its Creator, for *the sun has its spots*, while HE who made the Sun, is

——"Light itself,
Pure, spotless, uncreated light, ineffable."

According to Dr. Gregory, "the sun is very generally considered as composed of the matter of light and heat whether these are to be regarded essentially the same or not;" but he is careful how he expresses himself even in this cautious manner of declaring his sentiments for he adds, "perhaps it will be speaking more correctly, to say, that he is the *source of both*, and that he both warms and enlightens the bodies that surround him." The sun is indeed the great fountain of light and heat, and it is amazing to think with what rapidity of motion he sends forth his rays to illumine and cherish the world: for so great is the distance of this bright body from us, that, were the motion of light no swifter than a cannon ball, it would take, according to the computation of philosophers, thirty-two years in arriving at the earth; and were it no swifter than sound, it would take upwards of seventeen years; but light flies with such incredible velocity that it arrives at the earth in about seven or eight minutes, being at the rate of no less than 200,000 English miles in a second of time. By this means the inconvenience that would result from a slower progress of light is obviated, and the kindly effects of this inestimable and indispensable blessing are conveyed to us in an instant.

The rays of the sun are not sparingly dispensed, nor come to us from a nigardly hand. The rays of light are copiously diffused, and in sufficient abundance to chase away the most minute vestige of the shades of night. The *extension* of light is a most valuable property of that great and invaluable blessing, for it is by it that we are enabled to see bodies at a distance during the day, and by the same operating cause, the mariner during the hours of darkness, observes the *fiery beacon* glimmering from afar.

The *heat* of the sun is also most potent in its operations. With ease it penetrates into the bowels of the earth, and finds its way into the most secret recesses of nature; so that in the expressive language of Scripture, "there is nothing hid from the heat thereof." But, indeed, what could possibly exist without it? The Sun may be truly styled the grand enlivening principle of the universe; without his influence the crimson tide behoved to stagnate in the veins of animated beings; "the trees could never break forth into leaves, nor plants spring up into flowers;" we would no more behold the meadows mantled over with green, nor the valleys standing thick with corn; or, to speak in the beautiful language of the prophet, "no longer would the fig-tree blossom, nor fruit be in the vine; the labour of the olive would fail and the fields could yield no meat; the flocks must be cut off from the fold, and there would be no herd in the stall." It penetrates the beds of metal, and finds its way to the place of sapphires. In short, the beneficial agency of this magnificent luminary is inexpressible.

The sun is also the fountain of cheerfulness. While all nature is enlightened by his presence, it is also cheered by its gifts. "Truly (says Solomon) the light is sweet, and a pleasant thing it is for the eyes to behold the sun." And the author of "The Spectator" has well observed, that the sun has a particular influence on the mind of man and making the heart glad, for a proof of which he refers us to a consideration of the natural world, when this luminous globe withdraws his rays for a few moments by an eclipse.

The human mind delights in variety, and one great cause that produces cheerfulness in the heart of man, as he walks abroad and contemplates the face of nature, is no doubt that diversity of light and shade, of colour and hue, that in every direction salutes his eye. In this respect, also, the sun may be said to be the fountain of cheerfulness, as it is certainly the cause of color! The sun is the great limner of nature, whose beautifying rays paint creation. "The blushing beauties of the rose,

the modest blue of the violet, (as Goldsmith observes,) are not in the flowers themselves but in the light that adorns them. Odour, softness, and beauty of figure are their own; but it is *light* alone that dresses them up in those robes which shame the monarch's glory."

The sun may, therefore, also be well styled the fountain of colour; and, but for this, what disadvantages would we labour under, notwithstanding the beneficial distribution of light and heat. In that case, we would not only be unable to distinguish objects at a distance, and to perceive the colour of the raiment of our nearest friends, but be incapable of observing any difference of complexion betwixt the ink that flows from our pen, and the paper on which we write: without this discriminating property of light, no pleasing variety would overspread the great carpet of nature; the same unvaried hue, in every direction, would meet our eye; the same dull uniformity would every where prevail.

Such are some of the beneficial consequences that result from the Sun, with respect to the earth. We shall in our next consider him in another and a more exalted light, as the centre of the Solar System.

MANNERS AND CUSTOMS OF NATIONS.

ACCOUNT OF THE NATIVES OF KING GEORGE'S SOUND.

King George's Sound is situated on the south coast, but very near the south-west extremity of Western Australia, or New Holland; latitude 35° south, and longitude 118° east of Greenwich. As from the goodness of its harbour, and the even temperature of the climate, it is likely soon to become an important part of our settlements in Western Australia, we hope on an early occasion to give an account of the adjacent country, and of the progress made in colonizing it. At present it is only intended to give a few particulars of the natives. At the end of the year 1826, the government of New South Wales sent a party consisting of fifty-

two persons, under the command of Major Lockyer, to form a settlement at King George's Sound. The humane and judicious behaviour of these settlers to the natives, established a friendly intercourse which led to frequent visits from them, and afforded opportunities of collecting much interesting information respecting their customs and manner of life. Mr. Scott Nind, the medical officer of this new colony, collected many particulars respecting them, which he communicated to the Geographical Society, from whose *Transactions* the following particulars are extracted:

"The natives of King George's Sound differ little in their general appearance from the aborigenes of the neighbourhood of Sydney. They are of middle stature and slender in their limbs. The only article of dress used by them is a cloak of Kangaroo skin reaching nearly to the knee; it is worn as a mantle over the shoulders, and is fastened at the right shoulder with a rush, by which the right arm is left free. They are seldom seen without their cloaks, which in rainy weather are worn with the fur outwards. The other articles of ornament are the noodle-bul, or waistband, armlets, and head-dress. The noodle-bul is a long yarn of worsted, spun from the fur of the opossum, wound round the waist several hundred times; a similar band is worn occasionally round the left arm and the head. The single men ornament their heads with feathers, dogs'-tails, and similar articles, and sometimes have long hair bound round their heads. The women use no ornaments and wear their hair quite short. Both sexes smear their face and the upper part of their body with red pigment, mixed with grease. This they do, as they say, for the purpose of keeping themselves clean, and as a defence from the sun and rain. Their hair is frequently matted with the same pigment. When fresh painted, they are all over of a brick-dust colour. When they are in mourning, they paint a white streak across the forehead and down the cheek-bones. The women put on the white paint in large blotches. They have the same practice as at Sydney of cutting gashes

in the body, and raising an elevated scar. The septum of the nose is also pierced, through which a feather or other substance is worn.

"Their weapons consist of spears of two or three kinds, which are propelled with a throwing-stick. They have also a knife, stone hammer, and a curl, a curved flat weapon.

"Their wigwams or huts are composed of a few twigs stuck in the ground and bent in the form of a bower, about four feet high and five or six wide. They also thatch them slightly with leaves of the grass-tree, and in rainy weather, roof them with pieces of bark; but they afford a miserable protection from the weather. Those families who have locations near the sea quit them during the winter for the interior, and the natives of the interior, in like manner, pay visits to the coast during the fishing season. In the summer, the natives often set fire to considerable portions of underwood and grass; the hunters, concealed in the smoke, stand in the paths most frequented by the animals, and spear them as they pass by: in this way great quantities of kangaroos and bandicoots are killed. As soon as the fire has passed over the ground, they walk among the ashes in search of lizards and snakes, which are destroyed in great numbers, and which they eat. In the chase the hunters are assisted by dogs, which they take when young and domesticate. The owner of the dog is entitled to an extra proportion of the game killed. Lizards afford a favourite repast; and at some seasons, form a considerable portion of their food; they likewise eat several species of snakes.

In the spring they live chiefly on the eggs and young of birds. They are extremely expert in climbing trees, which they do by notching the bark; thus they procure the opossums in the holes of the trees. During the summer and autumn months, the natives derive a large portion of their food from fish. As they have no canoes, neither can they swim, they can only catch the fish which approach the shores; they have neither nets, nor hook and line, and the only weapon they use is the

spear, with which they are very dexterous. Oysters are to be obtained in large quantities, but none were eaten by the natives, before the settlers taught them the use of them; they are now fond of them when cooked.

"Frogs of two or three species are eaten chiefly at the season of their spawning. They eat also the grubs of a kind of cockchafer, and the eggs of ants. The vegetable substances which they eat are chiefly bulbous roots, which they roast. They suck the honey from the flowers of the Banksia. Their dances vary much, but display neither elegance nor activity.

"They have several remedies for diseases; they administer the gum of the grass-tree in cases of dysentery. Their treatment for the bite of a snake is simple and rational; they tie a ligature of rushes above the part, enlarge the wound with the claw of the kangaroo, or the point of a spear, and then suck it, washing their mouths and the wound frequently with water. They possess few utensils, and those of the rudest construction; a piece of soft bark tied at the end serves as a drinking cup, the claw of the kangaroo they use as a needle. They appear to be divided in some kind of tribes, with subdivisions of clans and families, the nature of which are not yet very perfectly understood.

"The settlers have of late induced some of the natives to do a little work for them, such as cutting grass and carrying water; but like all savages, they do not like much regular labour."

The taxes are indeed heavy; and if those laid on by government, were the only ones we had to pay, we might more easily discharge them;—but we have many others, and much more grievous to some of us. We are taxed twice as much by our idleness, three times as much by our pride, and four times as much by our folly; and from these taxes the commissioners cannot ease or deliver us by allowing any abatement.—Franklin.

THE HORN OF THE ALPS.

What time, behind the distant rock,
Slow sinks the weary sun to rest,
And, shedding far a rosy hue,
Yet lingers on its snowy crest;

The herdsman, from his beacon hut,
Keeps watch to bid the day farewell;
His horn conveys the evening hymn
From crag to crag, from dell to dell.

The welcome sound is borne along
Cliff to cliff the note repeating;
Echo still protracts the strain
Through the glaciers far retreating.

The peasants at the cabin door
Up-raise the hymn "with one accord,"
And, bending low the grateful knee,
Bid all things living "Praise the Lord."

Hush! hush! the twilight fades away,
And darkness holds its tranquil reign.
Hark! hark! the mountain sentinel,
The peaceful horn resounds again!

"Good night!" the listning rocks reply—
And vale to vale, and height to height,
The social blessing still proclaim,
And Echo still repeats "Good night!"

The horn is hush'd, the herdsman rests,
And healthful sleep all nature sways;
The morrow's sun will rise on him,
Again to wake his song of praise.

THE CHILD OF EARTH.

BY MRS. NORTON.

Fainter her slow steps fall from day to day;
Death's hand is heavy on her darkening brow;
Yet doth she fondly cling to earth and say,
"I am content to die—but oh! not now!—
Not while the blossoms of the joyous spring
Make the warm air such luxury to breathe—
Not while the birds such lays of gladness sing—
Not while the bright flowers, round my footsteps wreath.
Spare me, great God! lift up my drooping brow—
I am content to die—but oh! not now!

The Spring hath ripened into summer time;
The season's viewless boundary is past;
The glorious sun hath reached his burning prime;
Oh; must this glimpse of beauty be the last!
"Let me not perish while o'er land and sea,
With silent steps the Lord of light moves on—

Not while the murmur of the mountain bee
Greets my dull ear with music in its tone;—
Pale sickness dims my eye and clouds my brow—
I am content to die—but oh! not now!

Summer is gone; and autumn's soberer hues
Tint the ripe fruits, and gild the waving corn;
The huntsman swift the flying game pursues,
Shouts the halloo, and winds his eager horn,
"Spare me awhile, to wander forth and gaze
On the broad meadows and the quiet stream—
To watch in silence while the evening rays
Slant through the fading trees with ruddy gleam
Cooler the breezes play around my brow—
I am content to die—but oh! not not now!"

The bleak wind whistles; snow showers far and near
Drift without echo to the whitening ground;
Autumn hath passed away, and cold and drear,
Winter stalks on with frozen mantle bound:
Yet still that prayer ascends. "Oh! laughingly
My little brothers round the warm hearth crowd,
Our home fire blazes broad, and bright, and high,
And the roof rings with voices light and loud:
Spare me awhile! raise up my drooping brow!
I am content to die—but oh! not now!"

LINES BY BISHOP HORNE.

Sweet *day*, so cool, so calm, so bright,
Bridal of earth and sky,
The dew shall weep thy fall to-night,
For *thou*, alas! must die!

Sweet *rose*, in air whose odours wave,
And colour charms the eye,
Thy root is ever in its grave,
And *thou*, alas! must die!

Sweet *spring*, of days and roses made,
Whose charms for beauty vie,
Thy days depart, thy roses fade—
Thou, too, alas! must die!

Be wise, then, Christian, while you may,
For swiftly time is flying;
The thoughtless man may laugh *to-day*,
To-morrow may be dying!

ON RAIN.

Behold how lovely shine the gems of rain,
Like sparkling diamonds on the glittering plain;
How, hanging on the flow'ring shrubs they blaze,
And dart beneath the leaves their silver rays,
The plants refresh'd, their flowers to Heaven disclose,
As grateful for the good its hand bestows.

HINDOO TEMPLE AT GORUCKHNATH